

Work Order ID 80008

\*80008\*

Page 1

February-08-12 4:06:00 PM

Item ID: D2230-1 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Lug  
 Start Date: 08/02/2012 Start Qty: 160.00 \*160\* Cust Item ID:  
 Required Date: 22/02/2012 Req'd Qty: 160.00 \*160\* Customer:  
 Reference:

Approvals: Process Plan: M.C.J. Date: 12/02/08 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2230	Rev G

100	BAND SAW	0.00							
*100*									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	Cut D2423 extrusion to 0.82"								
	Batch: _____								

CY 12/02/10

110	HAAS CNC VERTICAL MACHINING #1	0.00							
*110*									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Machine per folio FA927								
	DWG REV: _____								
	FOLIO REV: _____								
	(Check for crack while loading into the machine.)								
	2- deburr rough edges								

CY 12/02/10 (160)

Issue P10 to meter  
 machine as per drawing D2230  
 REV. G

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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February-08-12 4:06:00 PM

Item ID: D2230-1

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Lug

Start Date: 08/02/2012 Start Qty: 160.00

\*160\*

Cust Item ID:

Required Date: 22/02/2012 Req'd Qty: 160.00

\*160\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC2-Inspect parts off machine FAI/FAIB

0.00

\*120\*

QC

Memo

0.00

Quality Control

*can't inspect for transit damage.  
attached c/c to wro*

130

QC3-Inspect parts - second check

0.00

\*130\*

QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

\*140\*

HandFinish

Memo

0.00

Hand Finishing

*Handwritten notes and stamps:*  
 6/13/12 (200)  
 6/14/12 (160)  
 12-03-22 (160)

*Handwritten notes:*  
 160 PL 12-3-26

W/O:		WORK ORDER CHANGES					
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*E10-719-250*

**NOTE:** Date & initial all entries

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February-08-12 4:06:00 PM

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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150	QC3- Inspect Part Finish	0.00							
*150*									
QC	Memo	0.00							
Quality Control									

160 X 8 M / 12/23/26

160	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
*160*									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 1h05 OVEN TEMPERATURE: 320°F FINISH TIME: 1h35								

160 X 2 (2P) 12/04/02

m'20222

170	QC3- Inspect Part Finish	0.00							
*170*									
QC	Memo	0.00							
Quality Control									

160 X 4 M 12/04/02

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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**NOTE:** Date & initial all entries

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February-08-12 4:06:00 PM

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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location: <u>480 JB</u>	0.00							
*180*									
Packaging	Memo	0.00				<u>160</u>			<u>12/04/10 JB</u>
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
*190*									
QC	Memo	0.00							<u>12/4/12 JJ</u>
Quality Control									

12-04-11

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries



# Picklist Print

February-08-12 4:06:04 PM

Work Order ID: 80008

\*80008\*

Parent Item: D2230-1

\*D2230-1\*

Parent Item Name: Lug

Start Date: 08/02/2012

Required Date: 22/02/2012

Start Qty: 160.00

Required Qty: 160.00

Comments: IPP D00.11.01 Added inspection level 8, and removed P/O for powder coatEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2230-1P		Purchased	No				Each	0.0000		160			
*D2230-1P*									**				
LUG													
D2423		Manufactured	No			110	f	373.9000	0.0683	11.50316			
*D2423*									**				
Lug Extrusion													

164/3/12 (160)

C212102110

Location

Loc Qty

Loc Code

MAT006

373.9

43722

161.5

45800

1

68331

211.4

11.503

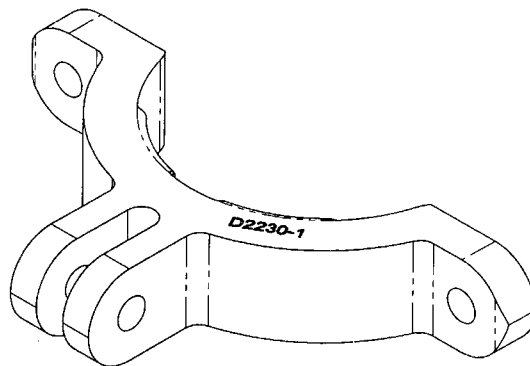
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

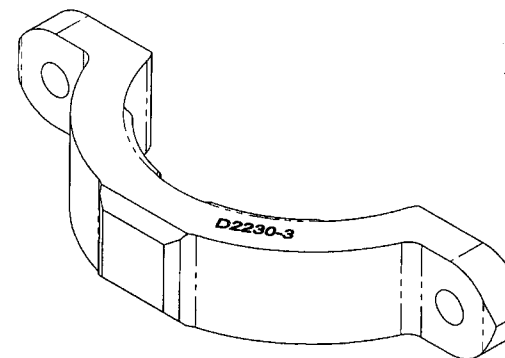
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**NOTE:** Date & initial all entries



**D2230-1 MOUNTING LUG**



**D2230-3 MOUNTING LUG**

**RELEASED**  
9/16/05



**NOTES:**

- 1) MATERIAL: MAKE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF  $0.010 \pm 0.005$  IN THIS LOCATION, WITH TOOL TIP RADIUS OF  $0.015 \pm 0.005$ .
- 7) WEIGHT: -1: 0.16 lbs  
-3: 0.14 lbs

G	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. REFER TO SECTION A-A & B-B FILLET ADDED TO PREVENT CHAFING OF RUBBER CUSHION ON INSTALLATION.	AJS	09.01.16
F	REDESIGN; R1.200 WAS 1.100	CP	99.12.13
E	RE-DESIGN	BW	95.01.04
D	RE-DESIGN	BW	95.01.04
C	RE-DESIGN	BW	94.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2230	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
DATE	09.01.16	<small>COPYRIGHT © 1994 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

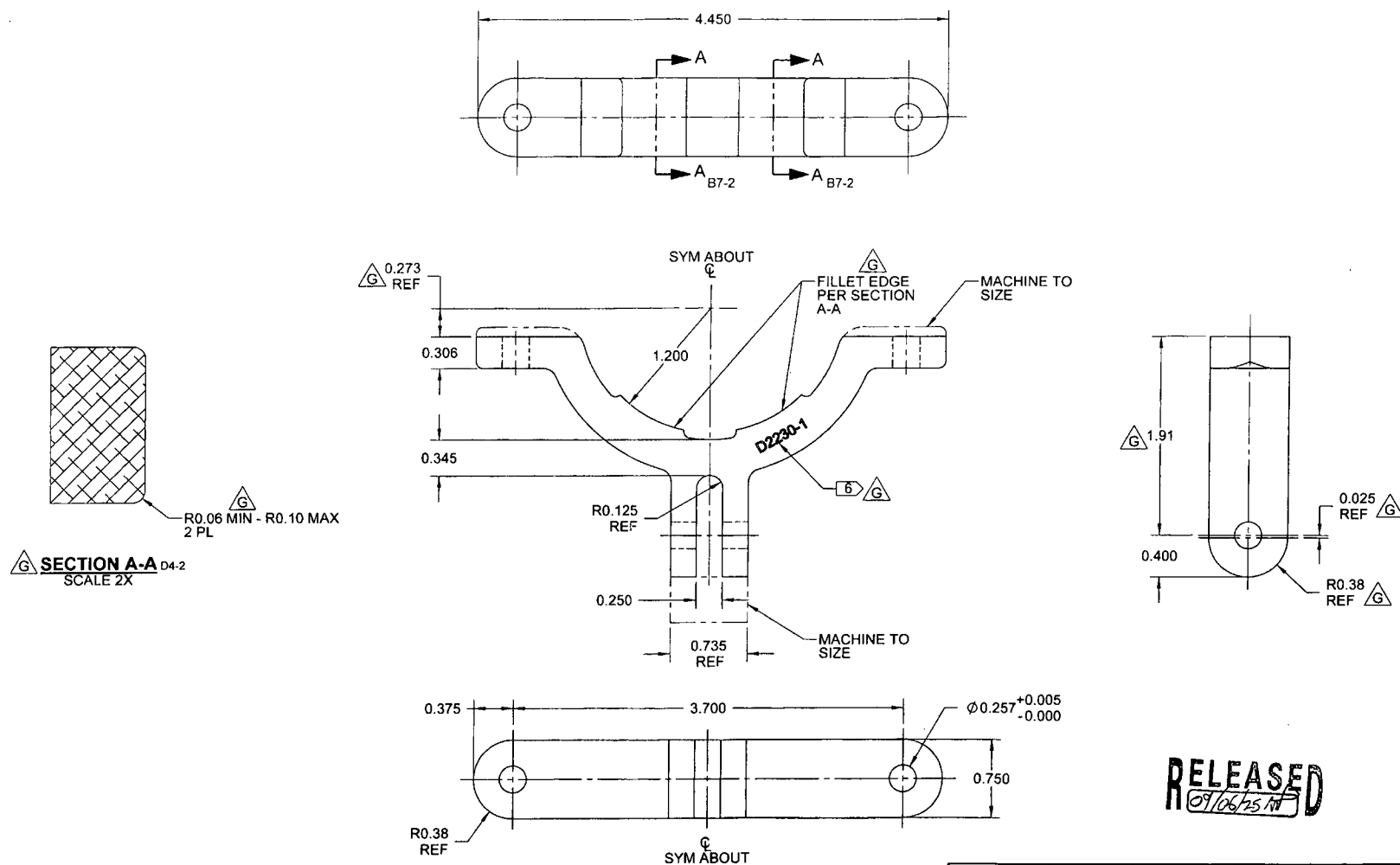
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80008



**SECTION A-A** D4-2  
SCALE 2X

R0.06 MIN - R0.10 MAX  
2 PL

**D2230-1 MOUNTING LUG**

DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2230	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
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**RELEASED**  
09/06/25/17

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

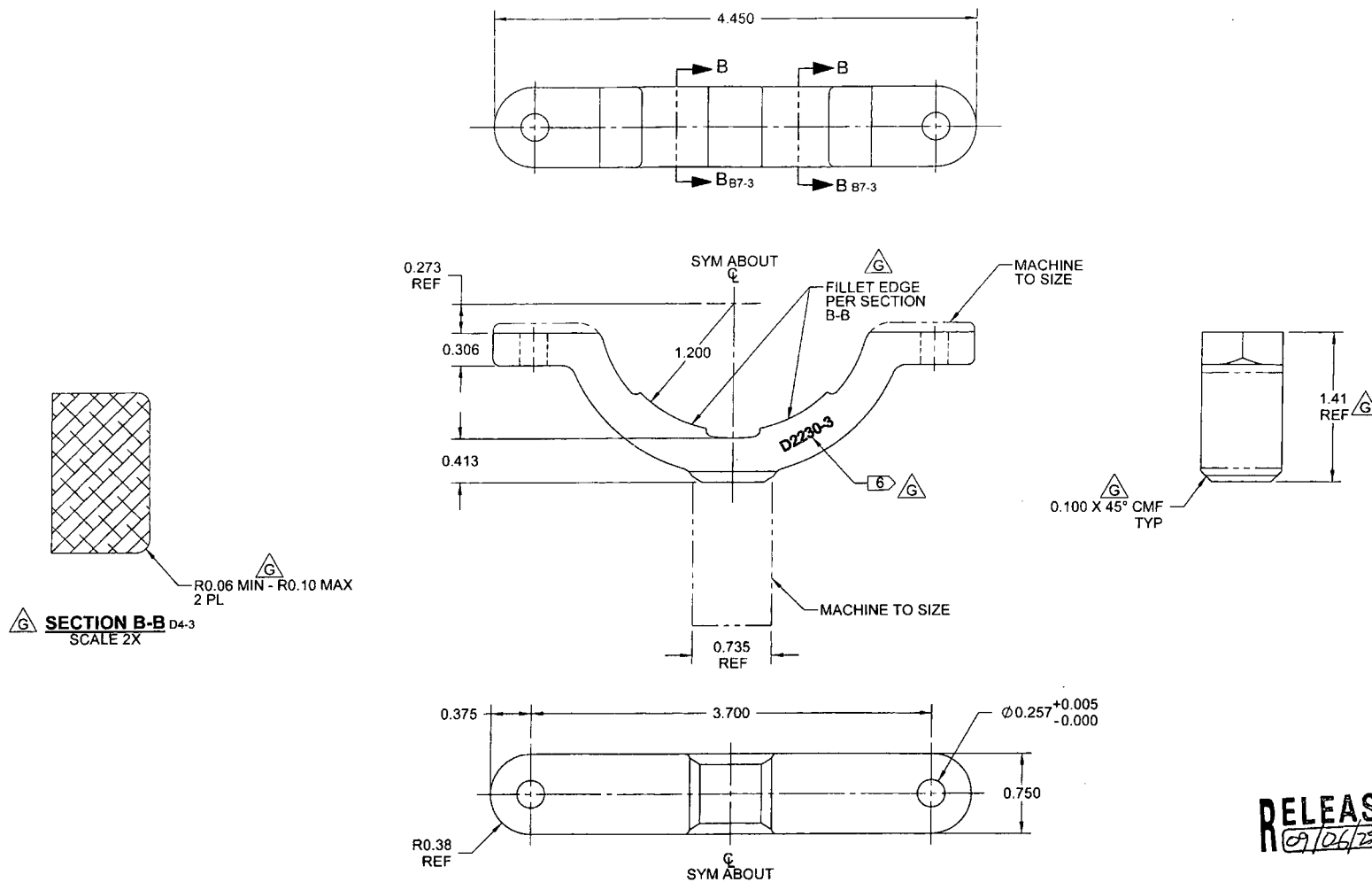
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			





**NOTE:** Date & initial all entries

80008



**D2230-3 MOUNTING LUG**

RELEASED  
09/06/2014

DESIGN	BW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2230	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
DATE	09.01.16	COPYRIGHT © 1994 BY DART AEROSPACE LTD	
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**Dart Aerospace Ltd**

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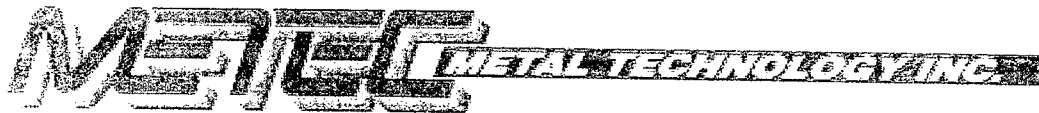


20 Terry Fox Drive  
Vankleek Hill, Ontario K0B 1R0 , Canada  
Tel: (613) 678-3957  
Fax: (613) 678-3956

**Delivery Slip No.:** 18523  
**Date:** Mar 21, 2012  
**Page:** 1

<b>Sold to:</b>  <b>Dart Aerospace Ltd.</b> Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	<b>Ship to:</b>  Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
<b>Order No.:</b> PO16167	<b>Sold By:</b> Dewar, Eric
<b>Shipped By:</b> our truck	<b>Ship Date:</b> Mar 21, 2012

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D2230-1 Mounting Lug as per dwg. D2230 REV.G B80008	Each	160	160	
D2230-3 Mounting Lug as per dwg. D2230 REV.G B80009	Each	200		
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by _____		Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0  
Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 [metec@metec.ca](mailto:metec@metec.ca)

---

## CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, Ont.  
K6A 1K7

SHIPPED TO:

same

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>PART NAME</u>	<u>P.O. NUMBER</u>
160	D2230-1	Mounting Lug	PO16167

MATERIAL: supplied by DART B68331

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

  
Jan Norris

Vankleek Hill, March 21, 2012